ABSTRACT

A fine channel device for performing a chemical treatment or for producing fine particles, having the degree of integration of fine particles two-dimensionally and threedimensionally and capable of supplying a liquid to all of the fine channels evenly and producing products in a large quantity[[,]] is provided, and a small-sized chemical-plant capable of achieving a production quantity comparable to a conventional large-scale chemical plant comprising the fine channel device as a fundamental constituent factor, is provided. A The fine channel device introducing at least one fluid and having fine channels for performing a chemical treatment for the fluid introduced and for producing particles from the fluid introduced, the fine channel device having includes a storage space for temporarily storing the introduced fluid having a shape of a circular or [[a]] polygonal recess for temporarily storing fluid, and supply channels of a linear and/or a curved shape formed in a radial direction from the storage space, wherein the fine channels are communicated with each of the fine channels of the fine channel substrate having the fine channels, is used. A small sized desksize-chemical plant comprising includes a plurality of the fine channel devices as fundamental constituents, means for supplying and a mechanism to supply at least one fluid to the plurality of fine channel devices, and means for recovering and a mechanism to recover products produced by performing a chemical treatment of above fluid or particles produced from the above fluid in the plurality of fine channel devices, is used.